Section 4: Universal Waste and Used Oil

This Section will help you:

- Understand how to dispose of universal waste in accordance with regulations;
- Improve your shop's universal waste handling practices and awareness;
- Understand that storage tanks for fuel and oil must meet special DEQ requirements;
- Understand the requirements for properly handling used oil and used oil filters; and
- Learn voluntary practices to manage your used oil better.

4.1 Universal Waste (applies to all auto body shops)

Universal waste is a separate classification of waste that includes:

- **Batteries.** This includes both dry cell batteries, such as AA and D used for electronic devices, and lead-acid batteries, such as car batteries. This category includes common alkaline batteries as well as less common batteries like those made of lithium and nickel metal hydride. Used car batteries don't have to be managed as universal waste if they are sent to a recycler. Lead acid batteries must be reclaimed or recycled within one year.
- **Mercury thermostats.** These thermostats may be marked as containing mercury. Alternately, you can usually identify a mercury thermostat by opening it up and seeing a glass tube with mercury inside the tube. Only discard a thermostat, if you are positive it does not contain mercury.
- **Mercury-containing UV and fluorescent light bulbs**. Mercury-containing fluorescent lights usually have a silver end-cap, and must be managed as a universal waste. Several manufacturers have developed products marketed as "low mercury lamps" ("low mercury" or "non-regulated" may be printed on the box or bulb). DEQ does not specifically endorse any manufacturer's claim. You, the generator, may use the manufacturer's claim to support their decision to handle these lamps as a non-hazardous solid waste. Ultimately, you are liable for the management of this waste, and you may decide to handle all UV and fluorescent light bulbs as universal waste. For more information, visit DEQ's web-site for fluorescent lights: www.deq.state.va.us/waste/fllights.html.

- **Pesticides.** This includes pesticides which are commercially available and those that have been banned, of which you may want to dispose.

Rules for Universal Waste allow a business to handle these types of wastes with less strict guidelines than the hazardous waste regulations. Any shop that uses these items must choose to either manage them as "universal waste" or as hazardous waste when those items reach the end of their usefulness.

This section of the workbook explains what you must do to comply with these regulations if you choose to manage your waste as "universal waste." If you choose to manage your waste as hazardous waste, refer to Sections 3.1 – 3.3 of this workbook.

It is very important to manage universal wastes properly. Universal wastes can contain heavy metals and other hazardous materials that can contaminate the environment and the food chain for decades. Batteries, mercury thermostats, and mercury-containing lamps should **never** be sent to solid waste landfills.

When you are finished reading this section, you should be able to answer the following questions on the Self-Certification Checklist:

4.2 Have you made your employees aware that batteries, mercury thermostats, mercury-containing UV and fluorescent lights and other universal wastes must be handled according to requirements for universal waste (or hazardous waste)? Is your shop in compliance with all of the requirements for handling, transporting and disposing of universal wastes?	Self-Certification Package Checklist Section 4 Universal Waste and Used Oil

4.2 Determining Your Universal Waste Handler Status

As with hazardous waste, universal waste requirements are different depending upon the amount of waste that a business handles. However, **universal waste handler categories are NOT the same as hazardous waste generator categories**. There are only two universal waste handler categories: Large Quantity Handler and Small Quantity Handler.

- **Small Quantity Handlers** accumulate some amount of universal waste, but less than 11,000 pounds per year. If your shop is a small quantity handler, please continue reading to learn more about the universal waste requirements you face.

- **Large Quantity Handlers** accumulate 11,000 pounds or more of universal waste per year. This workbook does not provide the requirements for Large Quantity Handlers, because the Auto Body Self-Certification Program is designed for small shops. Please **contact DEQ's Northern Regional Office at (703) 583-3813**, if your shop is in this category.

Your shop is not a handler of universal waste if your shop does not accumulate any waste batteries, mercury thermostats, mercury-containing UV and fluorescent lights, or pesticides. If your shop is not a handler of universal waste, please skip to Section 4.4 of the workbook.

4.3 Proper Handling of Universal Waste

You must ensure that your shop handles universal waste in such a way that it cannot endanger the environment or the health of your employees and the community. All small quantity handlers of universal waste must meet all of the requirements on the following page.

Requirements for Small Quantity Handlers of Universal Waste

- Keep universal waste in closed containers that prevent any parts of the waste from being released.
- Label all universal waste containers with the type of waste that is inside.
- Keep records of the dates for which universal waste is generated.
- Inform all employees that handle universal waste about proper handling and emergency procedures. (Several safety/spill procedures are listed under "Good Ideas" in this section.)
- Send all universal waste to only another universal waste handler, a permitted facility, or a foreign destination, within a year from the date generated.
- Maintain shipping manifests/shipping papers for universal wastes.
- **Don't** keep universal waste for more than one year from the time it was generated.
- **Don't** use lamp-crushing devices if you want to manage the lamps as universal waste. If you choose to use a lamp-crushing device, you must have a hazardous waste permit. **Contact DEQ's Northern Regional Office at (703) 583-3813 for further information.**

Good Ideas for Small Quantity Handlers of Universal Waste

- Send light bulbs for recycling, packaged according to your recycler's instructions. Appendix 11 includes a list of fluorescent light recyclers.

- Safely respond to mercury spills, such as a broken light bulb or thermostat. Consider the entire light bulb as hazardous waste when broken and clean up properly:
    - Buy a mercury spill kit, and train your employees how to use it to clean up spills.
    - Immediately after a spill, ventilate the area because mercury can quickly turn into a vapor that can damage the lungs. If a light bulb or mercury thermostat is broken, open the windows and close the doors to other rooms. If there are no windows, leave the door open and prop open all doors in the shop until there is a clear path to the outside.
    - After a spill, if a spill kit is not available, wear a dust mask and plastic gloves and sweep up the glass and powder with a broom. The mercury in UV and fluorescent light bulbs is not in the easily recognized silvery liquid form.

- Store light bulbs in the containers they were received in, to prevent breakage.

- Keep universal waste containers where they are not likely to be knocked over

or run into.

- Store batteries inside in a cool location in a vented, nonmetal container. Do not place in an airtight lid on the container, because gases that normally vent from batteries may be trapped, creating a potentially dangerous situation.

- Prevent used batteries from short-circuiting by placing batteries in separate containers or putting tape over the terminals.

- Inspect battery containers regularly to ensure they are not leaking or broken. Put batteries into new containers if you find that containers are leaking or broken.

- Carefully handle batteries that are dirty or have a white, film-like substance around the terminals. This may indicate that caustic materials have leaked out of the batteries. Wear eye protection, protective gloves and wash your hands with soap and water after handling the batteries.

- Keep a spill kit and personal protection equipment next to the battery storage area, in case there is a spill. Ensure there is an eye wash station at the battery storage area and mark it. The spill kit should include baking soda or lime to neutralize the acid, as well as clean-up materials such as rags, diapers or kitty litter.

- React properly and promptly if a lead acid battery spills or leaks:
    - Stop the source of the leak or spill.
    - Place the broken, cracked or leaking battery in a closed, watertight, acid-resistant storage container. NEVER assume a broken battery is completely dry.
    - Prevent spilled material from spreading.
    - Neutralize the acid with baking soda or lime.
    - Soak-up neutralized acid with a clean dry rag, diaper, or kitty litter.
    - Dispose of clean-up material in a labeled, acid-resistant, covered storage container.
    - Have used clean-up material collected by an authorized hazardous waste hauler.

- **Don't** ever use a shop vacuum to clean up mercury or broken UV and fluorescent light bulbs.

- **Don't** tape light bulbs together for shipping.

- **Don't** overstuff or under fill light bulb shipping boxes.

4.4 Fuel and Used Oil

Shops that handle fuel and oil must carefully follow requirements to ensure that these materials do not contaminate the water and the air. For instance, liquid fuel can escape storage tanks through cracks, and contaminate groundwater supplies for miles around. Fuel vapors can escape tanks at filling points or at pumps, and pollute the air. For a mobile fuel transfer station, use one that is OSHA approved (i.e. "Gas Buggy").

Used oil becomes contaminated with toxic chemicals during normal usage. If it is released into the water or burned, toxic contaminants can endanger the health of workers, the community and the environment. A single quart of motor oil can pollute 250,000 gallons of drinking water.

When you are finished reading this section, you should be able to answer the following questions on the Self-Certification Checklist:

Self-Certification Package Checklist Section 4 Universal Waste and Used Oil	**4.10-4.11** Does your shop have one or more storage tanks for fuel or oil, either above ground or underground? **4.12** Does your shop generate any used oil? Is your shop in compliance with all of the requirements for handling used oil? **4.14** Does your shop send its used oil for recycling?

4.5 Fuel/Oil Storage Tanks

You need to read this section if your shop stores new or used fuel and/or new or used oil in any kind of tank — whether that tank is above ground or underground. You are responsible for meeting tank requirements and ensuring that fuel/oil does not escape these tanks, and contaminate the environment.

If your shop does not have storage tanks for fuel or oil, skip to Section 4.6.

Requirements for Fuel/Oil Storage Tanks

You must ensure that all oil/fuel storage tanks meet requirements that protect the air and water. These requirements apply to above ground and underground tanks.

- Contact the DEQ Petroleum Program at (703) 583-3809 for storage tank requirements.
- Notify the DEQ Northern Regional Office's Pollution Response Program at (703)583-3864 at any time if your shop has a release of fuel or oil to the environment. This includes any releases to asphalt or concrete surfaces that drain to storm sewers or surrounding soil.

4.6 What is Used Oil?

Used brake fluid, compressor oils, coolants, electrical insulating oil, engine oil, heating media, hydraulic oil, lubricants, cutting oil, refrigeration oil, power steering fluid and transmission fluid are used oils. Used oil is considered contaminated.

If your shop generates any quantity of used oil and used oil filters, you are responsible for properly handling, recycling, and disposal. Keep reading to understand your requirements and recommended best practices. If your shop does not generate any used oil, you can skip to Section 4.8.

4.7 Proper Handling of Used Oil and Used Oil Filters

There are regulations to follow if your shop generates used oil. These regulations help protect the environment and the safety of you and your employees.

Information may be found at www.deq.virginia.gov/waste/hazardous5.html.

Requirements for Handling Used Oil and Used Oil Filters

- IMMEDIATELY respond to any releases or spills of used oil:
  - Stop, contain, and clean up the release.
  - Properly manage any materials (such as soil or kitty litter) contaminated with used oil. You can send these to shops that accept petroleum-contaminated materials.
  - Call the DEQ Northern Regional Office Pollution Response Program (PREP) at (703) 583-3864 to report the substance and approximate quantity spilled. This includes petroleum products, paints and paint thinners.
- Label all used-oil containers and tanks with the words "Used Oil."
- Fully drain all used oil filters before storing and disposing/recycling. It usually takes 24 hours to fully drain a filter. Store the drained oil in the used-oil container.
- Keep all used oil filters (including transmission fluid filters) in a container with a closed lid.
- Label all used oil filter container with the words "Used Oil Filters Only."

- **Don't** mix used oil with hazardous waste.
- **Don't** burn used oil in a used oil fire space heater unless it meets the specifications established under 40 CFR Part 279.

In addition to the above requirements, the best management practices on the following page are good ideas for properly handling used oil. Important points listed on the certification checklist are in bold.

Good Ideas for Handling Used Oil and Used Oil Filters

- **Send your used oil and used oil filters to a recycler**. This conserves resources and keeps oil from contaminating the environment. You may be able to obtain information about oil recycling from the National Oil Recyclers Association (NORA) at (703) 753-4277, www.noranews.org. For information and a list of collection facilities, contact DEQ's Steve Coe at (804) 698-4029, or visit www.deq.virginia.gov/recycle/usedoil.html.

- Keep your used oil container protected from the weather and tightly covered. This is a VERY important practice.

- Install secondary containment around storage areas. Secondary containment includes a small impermeable concrete pad and berm or a commercially available containment pallet or tray.

- Maintain spill-control material and equipment near stored fluids.

- Check all fluid storage containers for leaks and spills on at least a weekly basis. Keep the inspection records for 3 years.

- Keep manifests or bills of lading for all of your used oil shipments for 3 years.

- Train employees how to properly manage used oils.

- Use tight-fitting lids and leak-proof spigots, funnels or pumps to transfer fluids.

- Equipment (such as drain pans or funnels) utilized to handle used oil should not be used for other liquid wastes. This helps avoid contamination.

4.8 Preventing Pollution from Universal Waste and Used Oil

As discussed in Section 1 , pollution prevention means reducing waste through efficient use of energy, raw materials, and water. Auto body shops that prevent pollution help the environment and can often cut costs and increase profits. Reducing waste can also help reduce regulatory requirements.

This Section will help you identify ways to use your shop's resources more efficiently while preventing pollution from universal waste and used oil. You can also contact DEQ's Office of Pollution Prevention to get free non-regulatory assistance in pollution prevention. Just call Sharon Baxter at (804) 698-4344.

When you are finished reading this section, you should be able to answer the following questions on the Self-Certification Checklist:

4.19 Does your shop avoid buying high mercury florescent lamps? **4.20** Does your shop take steps to avoid drips and spills of used oil?	Self-Certification Package Checklist Section 4 Universal Waste and Used Oil

Please consider implementing the following good ideas to prevent pollution from your auto body shop. Points listed in bold below are in the certification checklist.

Good Ideas for Preventing Pollution

- **Buy low-mercury fluorescent lights**. Look for lights with a brown or green end cap, which are usually low mercury.
- **Take steps to avoid drips and spills of used oil**. Always use drain pans and take other steps identified in the "Good Ideas" Section of Section 4.7.
- Keep a well-organized shop to avoid accidents and spills.
- Send your used fluorescent bulbs to a recycler.
- Replace and recycle automotive switches that contain mercury, for example, switches used in trunk and hood lighting, and in anti-lock braking systems. Ball bearing switches may be an alternative.
- Recycle mercury thermostats and replace with non-mercury thermostats.
- Minimize the use of batteries whenever possible.
- **Don't buy high-mercury UV and fluorescent lights**.